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MidAmerican Energy Company

ICC Working Group Meeting on Energy Efficiency

April 6, 2005

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MidAmerican Energy Service Territory

MidAmerican provides service within a 10,600 square mile area with a population of 1.7 million

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Why Do Energy Efficiency?

- Mandated activity for IOUs in **Iowa**
- Ratepayers pay for energy efficiency in **Iowa**
- Iowa Utility Board oversees IOU activities
- Delays construction of power plants
- Provides value-opportunities for customers
- Helps protect the environment

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Summary

1990 - 2004

MidAmerican's EE Programs began in 1990

- Electricity savings through 2004
 - 600,000,000 kWh (108 million kWh saved in 2004)
 - Enough to power 62,000 homes (12,000 homes in 2004)
- Natural gas savings through 2004
 - 29,000,000 therms (4 million therms saved in 2004)
 - Enough to heat 32,000 homes (4,500 homes in 2004)

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Summary

2004

- **Electric savings**
 - kW: 191,000 planned vs. 254,000 actual
 - kWh: 57,600,000 planned vs. 108,000,000 actual

- **Natural Gas savings**

- Peak therms: 47,000 planned vs. 60,900 actual
- Therms: 3,120,000 planned vs. 4,250,000 actual

6 Energy Audit Programs

HomeChecksm

- Free on-site home energy audit
- Free direct installation of qualifying measures
- Special incentives for insulation and windows

BusinessChecksm

- Free on-site small business energy audit
- Free direct installation of qualifying measures
- Special incentives for insulation and lighting upgrades

EnergyAdvantage[®] Analysis

- Targets existing mid- & large commercial buildings and manufacturing processes
- C-level energy management and awareness diagnostic session
- Free comprehensive energy walk-through audit
- Cost sharing on detailed energy studies; customer's share reimbursable
- Financial incentives to influence energy saving projects

7 Efficiency Equipment Programs

Residential Equipment

- Electric & natural gas heating and cooling equipment
- Water heaters
- Windows – MidAmerican financing, only
- CFL coupon program through "big box" chain(s)

Nonresidential Equipment

- Heating and cooling equipment, incl. programmable t-stats
- Lighting, incl. occupancy sensors, LED traffic signal lights
- Premium efficiency motors & VSDs / ASDs

Nonresidential Custom Equipment & Systems

- Targets customized systems & non-prescriptive equipment
- Provides technical assistance to customers & contractors

8 New Construction Programs

New Homes

- U.S.EPA ENERGY STAR[®] certified homes (>3,000 homes in certified in 2004)
- Comprehensive rebates to homebuilders if 29 requirements met
- Rebate pays the majority of incremental cost to upgrade
 - heating and cooling systems
 - insulation levels
 - windows and doors

Commercial New Construction

- Energy design assistance for new / renovation projects
- Comprehensive rebates to owner / developer based on projected energy use better than building code
- Provides independent verification of installed energy strategies

9 Efficiency Bidsm Program

- New pilot program for 2004 - 2005
- Targets largest industrial customers (3 mW or more)
- Two RFP bidding cycles per year
- Customer-driven approach where customers:
 - Define the project
 - Define the installation period
 - Specify the financial incentives needed
- RFP bid evaluation and scoring system to fund the best projects
- Funded 15 projects in 2004; first completions in 2005
- Third bidding round ended March 31, 2005; ten proposals received and undergoing technical review

10 Load Management Programs

11 EnergyAdvantage®

Financing Program

- Available for customers in lieu of rebate incentives
- Financing covers
 - Labor and material costs
 - Removal and proper disposal of old equipment
- Financing rates
 - ½ point under Prime for residential projects
 - 1 point under Prime for nonresidential projects
- Financing program partner - First American Bank
- Financing does not apply to new construction programs

12 Low-Income Program

Home Weatherization Program

- Funds provided to State Iowa Department of Human Rights and local Community Action Program agencies (CAPs)
- Homeowners eligible for weatherization receive:
 - Free home energy audit
 - Free energy-saving measures, including:
 - Insulation
 - Energy-efficient light bulbs
 - Water heater wrap
 - Low-flow showerheads and faucet aerators
 - Possible appliance replacement (water heater, refrigerator, furnace)
- Results to date: over 13,500 homes weatherized in our service territory
- **Multifamily low income housing (under development)**
- **Emergency Shelters (future offering)**

13 Trees Please! Program

TreesPlease!

- *Trees Please!* has been extremely successful and popular with customers
- Communities with successful grant requests receive:
 - Grant money for planting of trees
 - Educational booklets
 - Tree safety sheet and tree-planting advice
- Program targets all communities; over 200 Iowa communities have applied to date

Plant some shadesm.

- Conducted in partnership with the Iowa DNR, Forestry Bureau
- Customers pay \$25 per landscape tree, with cap of two trees
- Distributed 2,750 trees, valued at > \$121,800, purchased from small businesses

Special projects

- American Forests - tree plantings from national historic trees
- Liberty Trees – tree plantings for each active service man and woman in the country
- Iowa DNR's Trees for Kids /Trees for Teens – 40,360 tree plantings organized by >5,500 teachers and youth leaders and planted by students with support from businesses; trees were valued at \$1.9 million

14 Assessments

Iowa law requires IOUs to assist in funding two organizations:

- Iowa Energy Center, Ames, to:
 - Serve as model for state efforts to decrease reliance on energy production from nonrenewable sources
 - Conduct / Sponsor research on EE and conservation
 - Conduct / Sponsor research to develop renewable-based energy systems
 - Assess technology related to EE and renewable systems
 - Support EE and renewable educational and demonstration programs
- Iowa Global Warming Center, U of I, Iowa City, to:
 - Support research on effects of global environmental change
 - Provide services to faculty members and students across the state who are interested in environmental change

15 Energy Efficiency Questions?